

ILLINOIS DIGITAL GOVERNMENT SUMMIT



OCT 6-7
2014

 #ildgs14



Successful, Sustainable, and Global

HOW THE NETWORK IS TRANSFORMING REGIONS TODAY

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Managing Director, Global Market Development
Internet of Everything for Cities

Illinois Digital Government Summit

October 7th, 2014



Biggest social shifts in history

Aging

Elderly (65+ yrs.)	2000	2050
World	6.8%	16.2%
USA	12.4%	21.6%
China	6.8%	23.3%
Sweden	17.2%	24.1%
Canada	12.6%	25.5%
Netherlands	13.6%	25.6%
Switzerland	15.4%	26.0%
Europe	14.8%	27.4%
Poland	12.2%	29.9%
Singapore	7.2%	32.6%
Germany	16.4%	32.5%
Italy	18.4%	33.3%
S. Korea	7.3%	34.2%
Japan	17.2%	37.8%

Shrinking

2050 Estimate	Millions	% Decline from 2000
Europe	691.0	(5%)
S. Korea	44.0	(5%)
Portugal	10.0	(9%)
Slovakia	4.9	(9%)
Hungary	8.9	(13%)
Germany	70.5	(14%)
Poland	32.0	(17%)
Japan	101.6	(20%)
Russia	116.0	(21%)
Romania	17.2	(22%)
Ukraine	35.0	(28%)
Bulgaria	5.3	(33%)

Hypergrowth

2050 Estimate	Millions	% Growth from 2000
World	9,149.9	50%
Brazil	222.8	28%
Indonesia	293.4	37%
India	1,613.8	55%
Egypt	129.5	85%
Philippines	146.1	88%
Saudi Arabia	43.6	110%
Pakistan	335.1	126%
Nigeria	289.0	132%
Iraq	63.9	160%
Ethiopia	173.8	165%
Congo	147.5	190%
Yemen	53.6	195%
Afghanistan	73.9	260%
Niger	58.2	428%

Massive Economic Rebalancing

The World's Top 10 Economies

1820		1999		2010		2050	
China	28.7%	U.S.	30.0%	U.S.	24.3%	China	32.7%
India	16.0%	Japan	14.5%	Japan	8.7%	U.S.	17.8%
France	5.4%	Germany	6.6%	China	8.6%	India	17.4%
U.K.	5.2%	U.K.	4.7%	Germany	5.7%	Brazil	5.3%
Prussia	4.9%	France	4.7%	France	4.6%	Mexico	4.3%
Japan	3.1%	Italy	3.8%	U.K.	3.7%	Russia	4.0%
Austria	1.9%	China	3.8%	Italy	3.6%	Indonesia	3.2%
Spain	1.9%	Spain	2.0%	Brazil	2.7%	Japan	3.1%
U.S.	1.8%	Canada	2.1%	Spain	2.5%	U.K.	2.4%
Russia	1.7%	Mexico	1.6%	Canada	2.3%	Germany	2.3%

Source: World Bank/Angus Maddison. The World Economy: Historical Statistics; World Bank; IMF

Rapid urbanization creates city problems worldwide



**Traffic
Parking
Lighting**

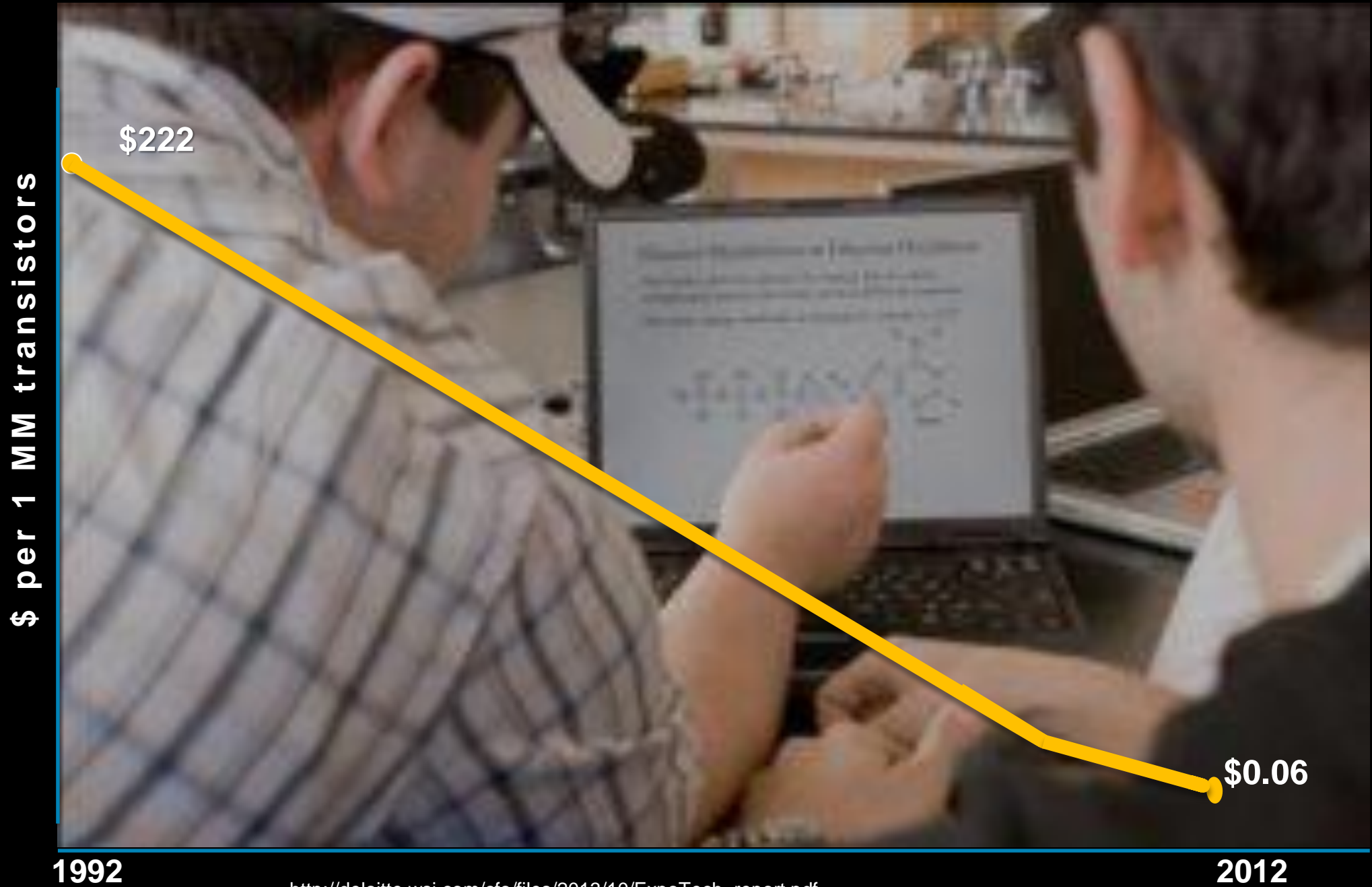
**Need to do
more
with less**

**Urban decay,
poverty, crime**

**Clean water
Clean air
Clean streets**

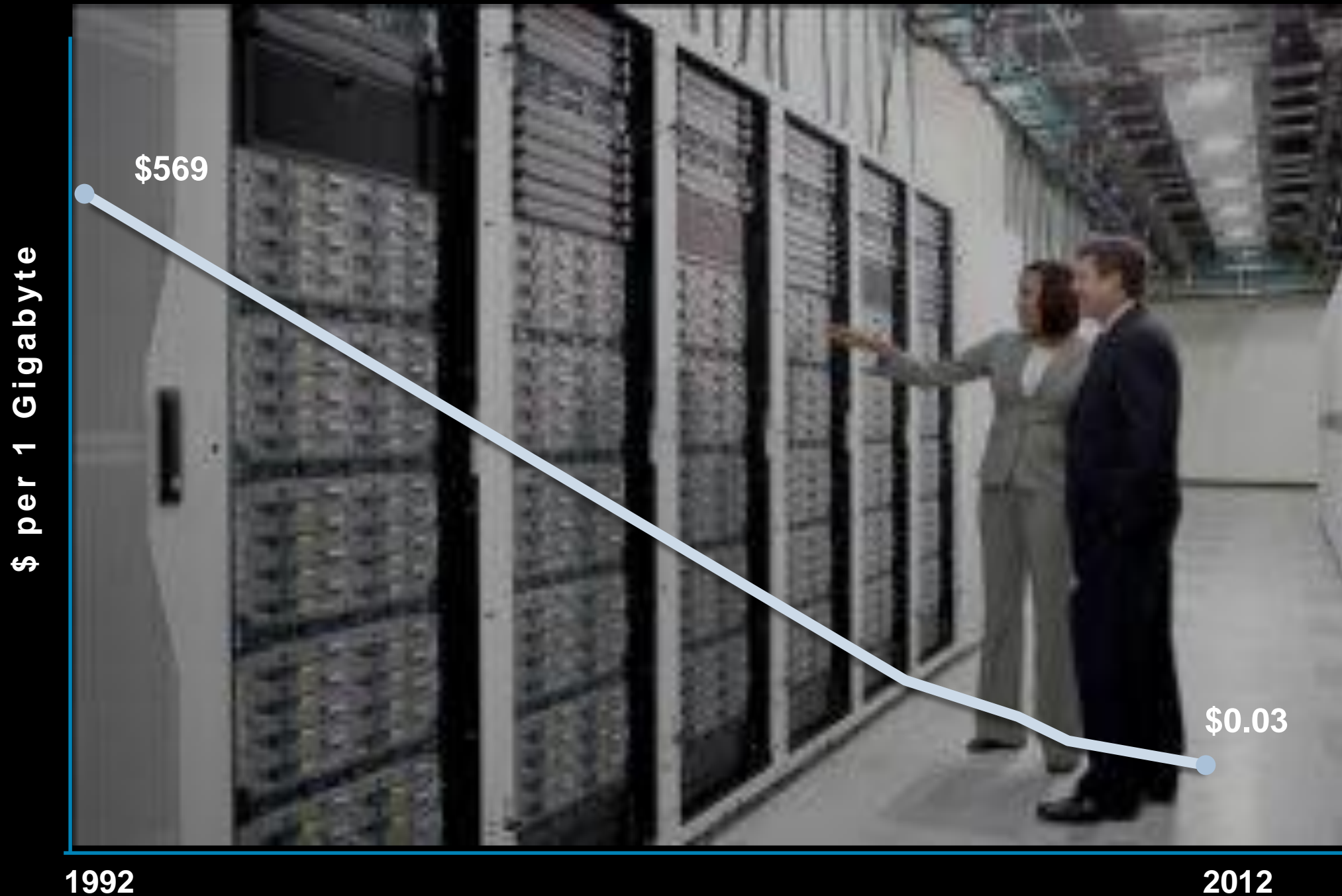
**Access to
education &
healthcare**

Affordable digital infrastructure: **Computing**

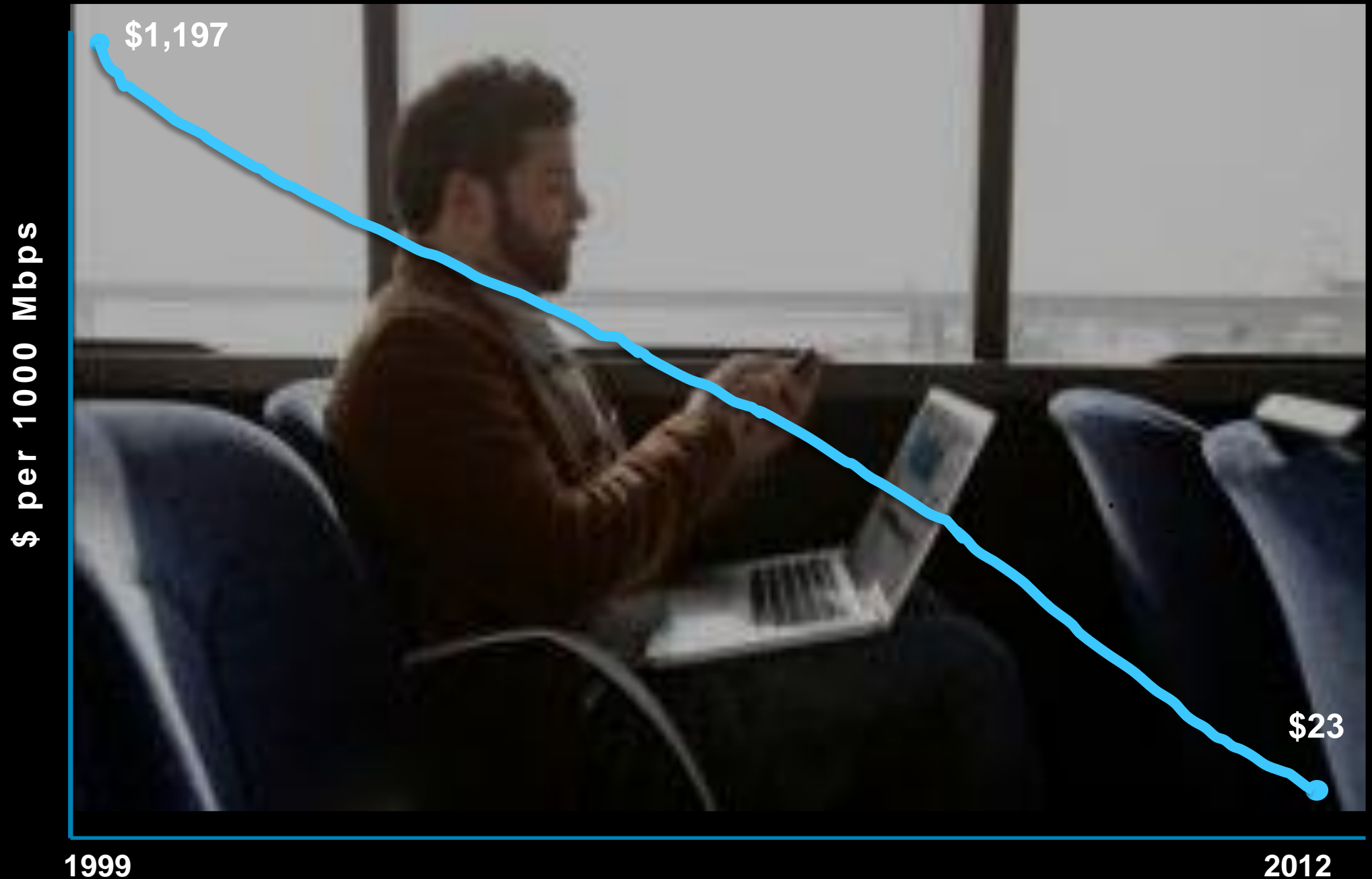


http://deloitte.wsj.com/cfo/files/2013/10/ExpoTech_report.pdf

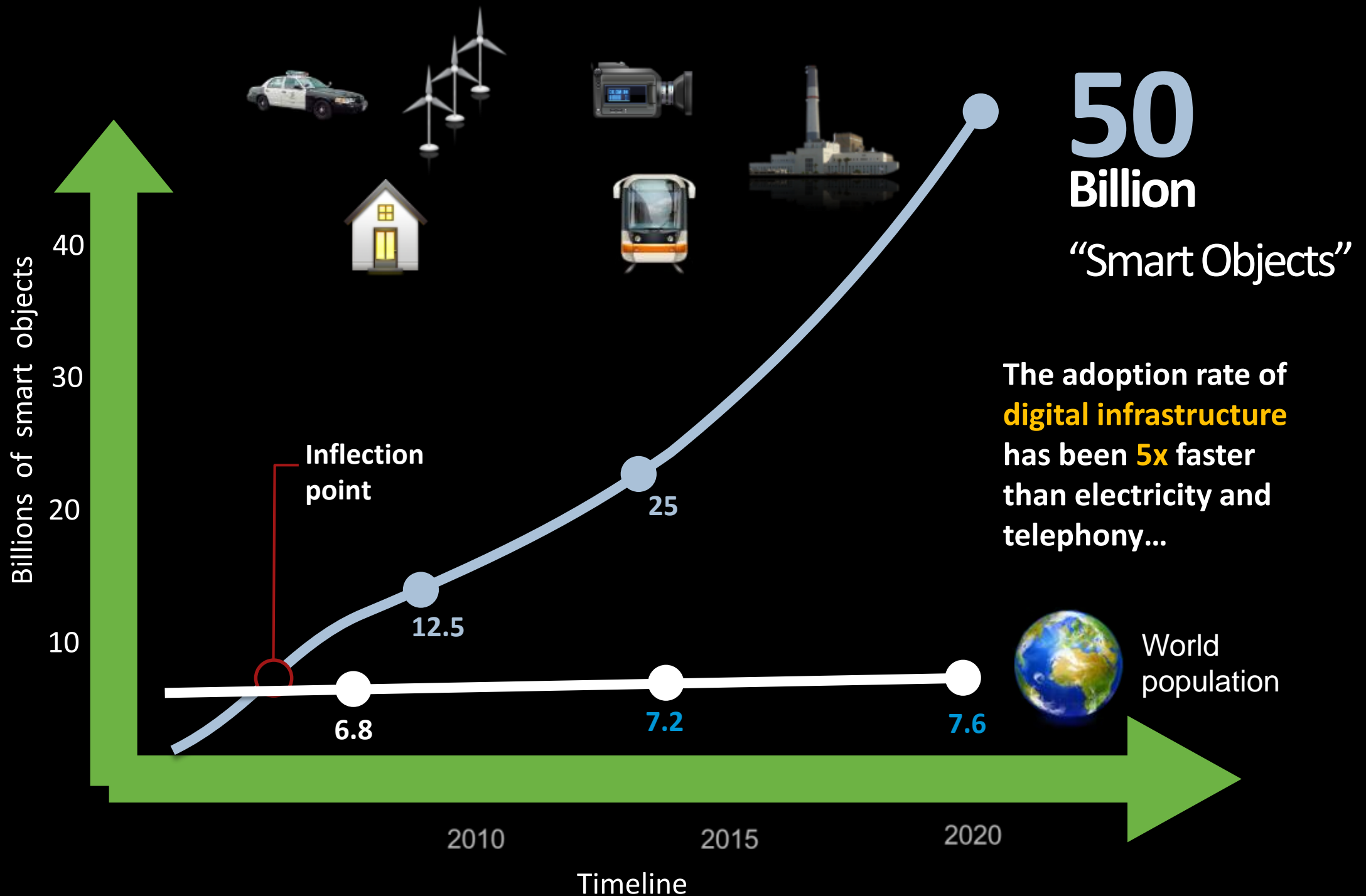
Affordable digital infrastructure: **Storage**



Affordable digital infrastructure: **Bandwidth**



Increasingly everything connects to everything



Intelligent Connections at the Heart of Cisco

Connectivity

Digitize Access to Information

- Email
- Web Browser
- Search

Networked Economy

Digitize Business Process

- E-commerce
- Digital Supply Chain
- Collaboration

Immersive Experiences

Digitize Interactions (Business & Social)

- Social
- Mobility
- Cloud
- Video

Internet of Everything

Digitize the World

Connecting:

- People
- Process
- Data
- Things

Intelligent Connections

The Internet of Everything

Networked Connection of People, Process, Data, Things

People

Connecting people
in
more relevant,
valuable ways



Process

Delivering the right
information to the right
person (or machine)
at the right time



Data

Leveraging data
into more useful
information for
decision making



Things

Physical devices and
objects connected to the
Internet and each other
for intelligent decision
making



Cisco Consulting Services

Internet of Everything

Benefits

Improved Experiences

Fuel Innovation

Increase Efficiency

Create New Markets

Unlock Intelligence

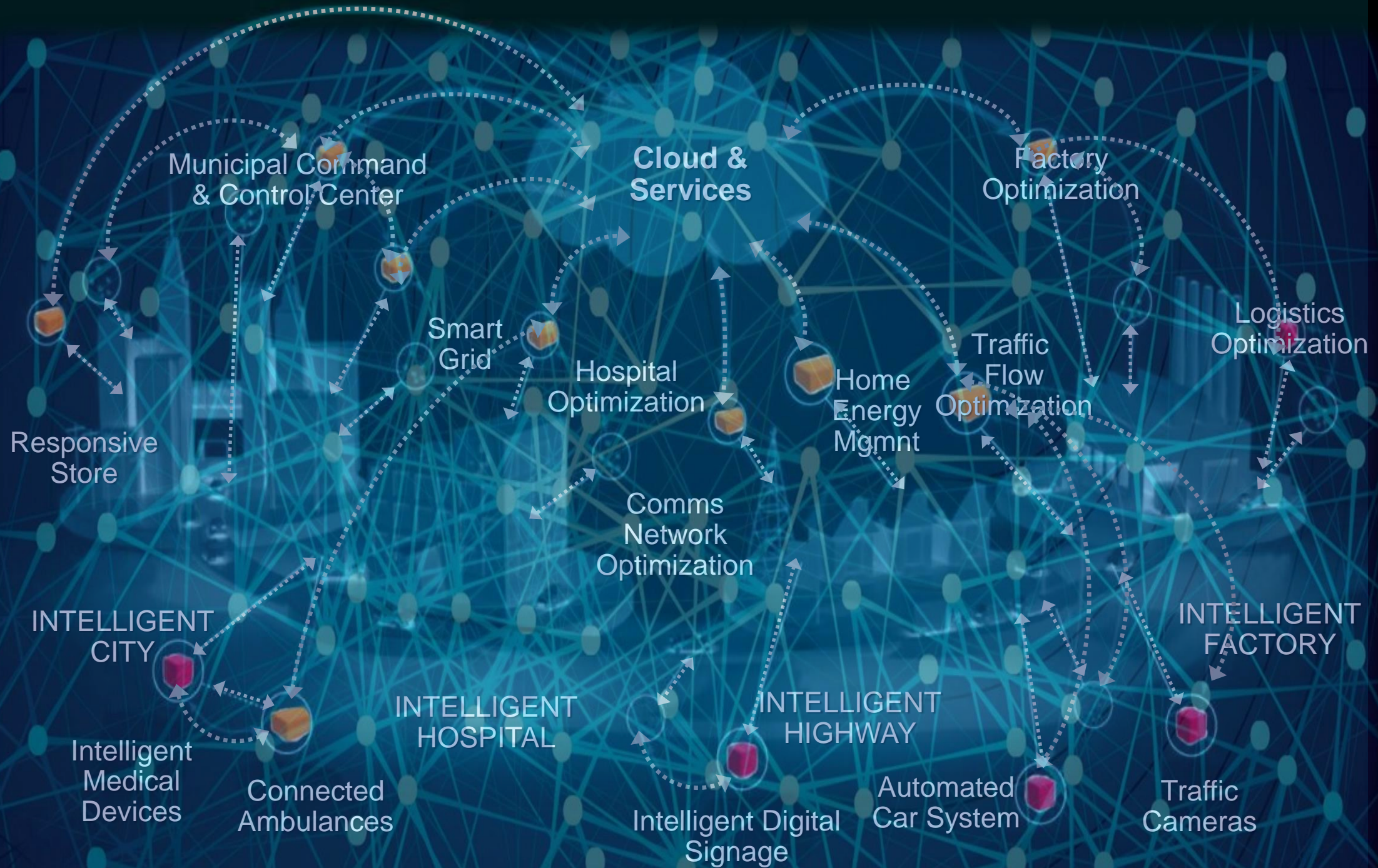
Minimize Risk



Technology *is*
a **POWERFUL** enabler

BUT...

...only when a digital infrastructure is integrated seamlessly



Source: Intel



What new questions must we ask...



...to address our challenges in new ways?



“Do we always need to *go* to the doctor...?”





“How do we educate the next generation of surgeons, architects, and cellists...wherever they are?”



Hershey's "Learn to Grow" Ghana Distance Learning Program



Songdo, South Korea: In-home 1:1 tutoring by native-English-speaking teacher in Michigan via TelePresence.

Taikonaut Wang Yaping teaches science to students in Beijing from outer space



“Why do we have traffic?”



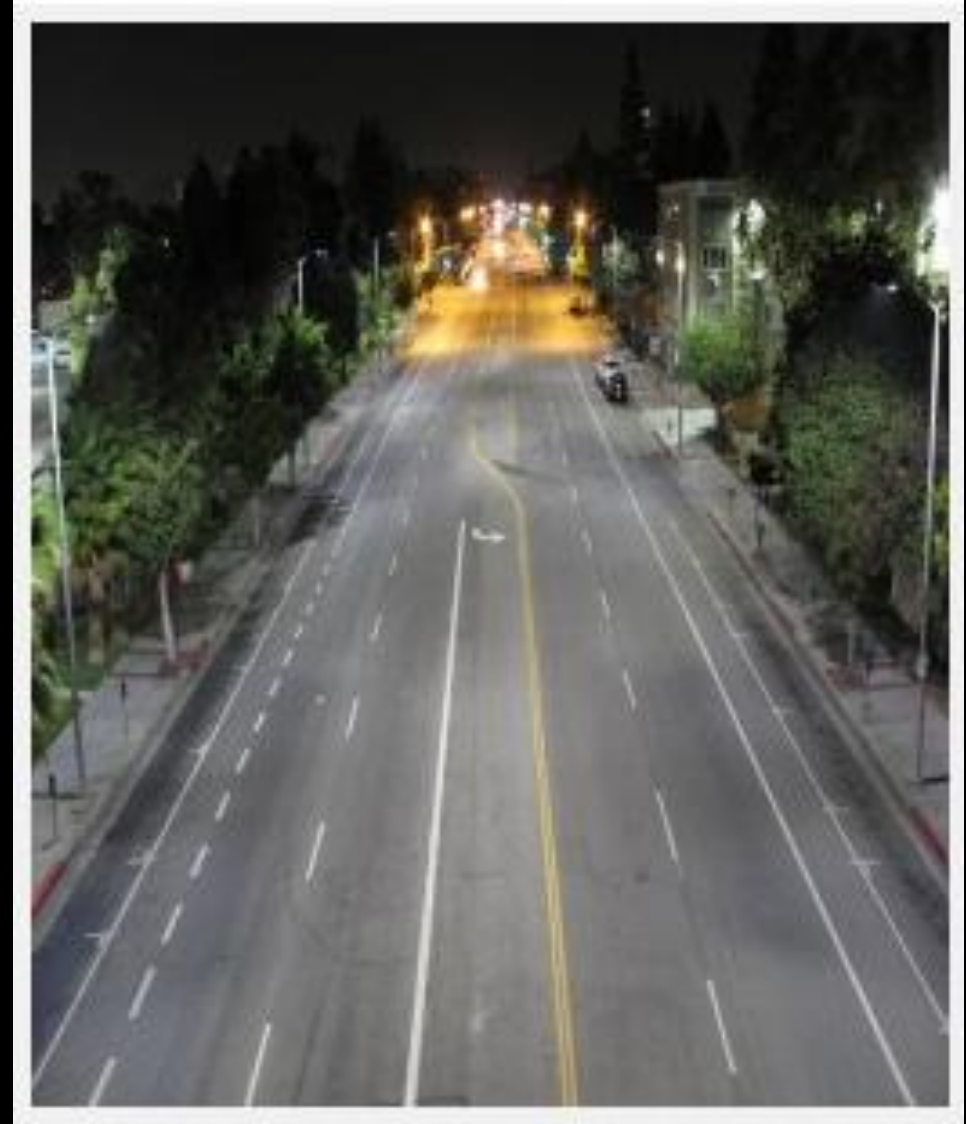
“How do we improve parking for drivers and cities?”



“Do we have to have our own office?”



“How can we make street lighting more efficient?”



**Why so many garbage trucks...
...and must they visit every can, every time?**



“What if City Hall came to you...at the Shopping Mall?”

- Nice, France
- Barcelona
- Mexico City
- Brisbane
- And more...



What if all city systems learned from each other?



U-City, Songdo Integrated Operations Center

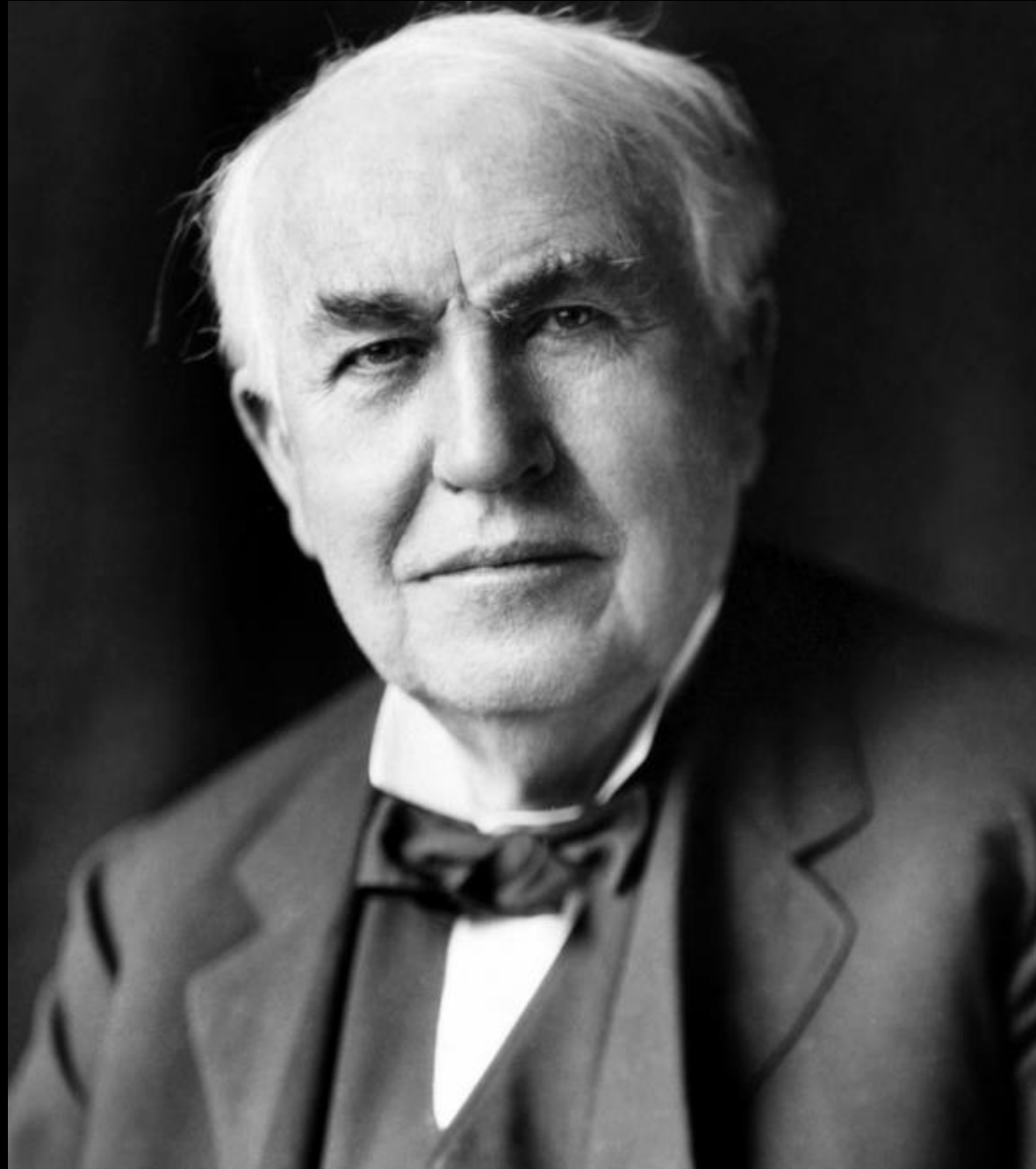


A new dawn...



...or a false beginning?

Thomas Edison



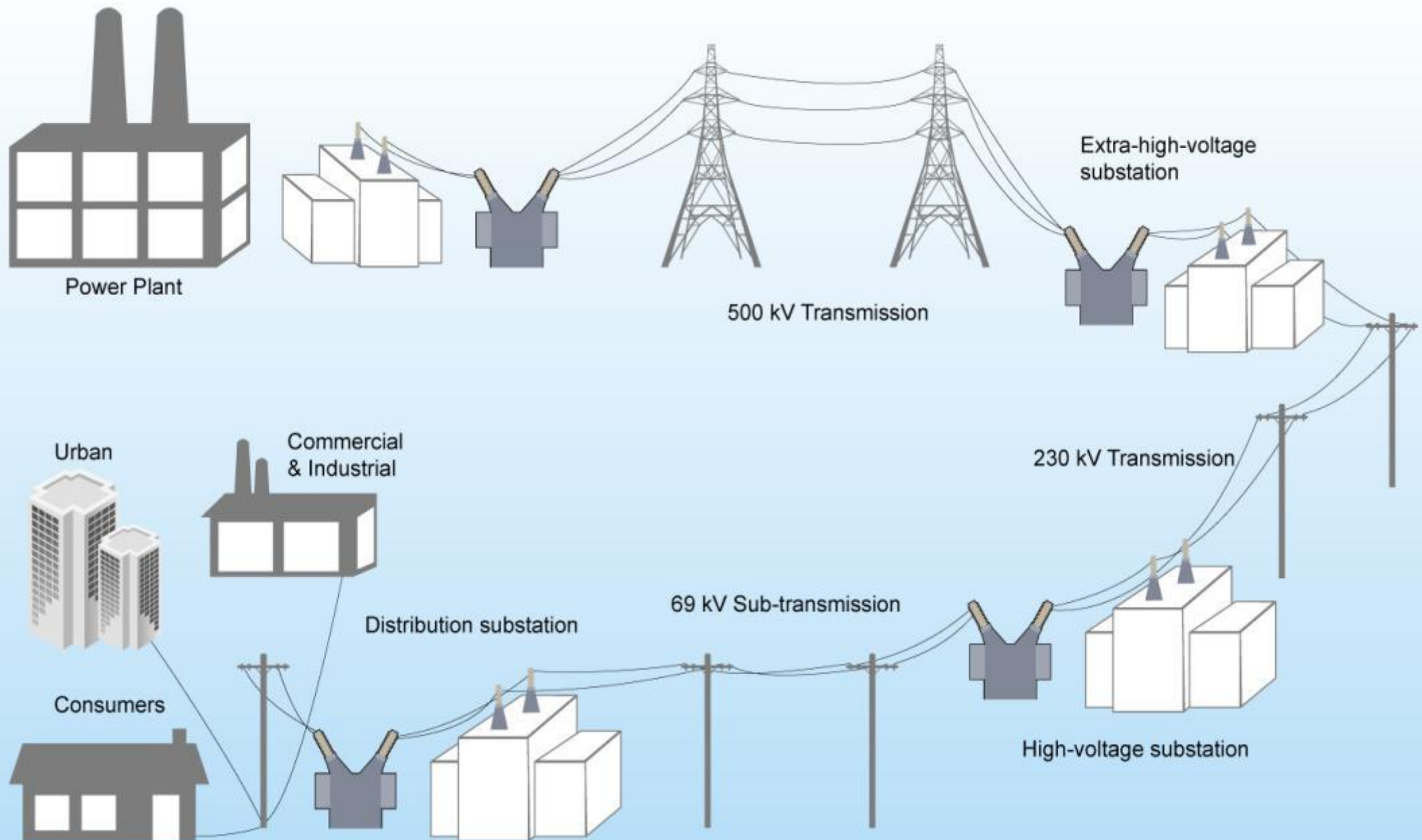
The Edison Idelia...



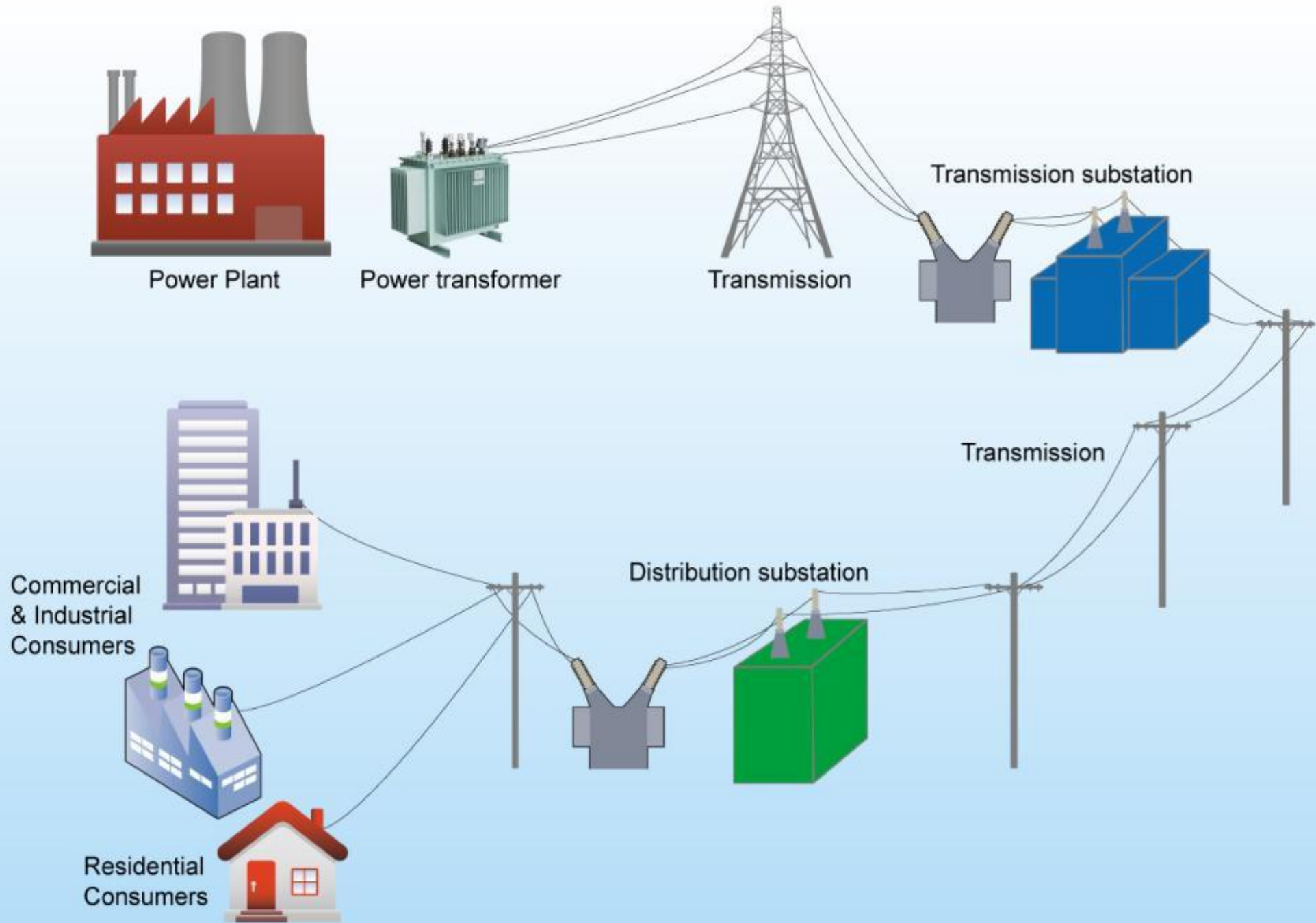
...to the iPod



The Electric Grid – Edison's Design 1892



The Electric Grid Today



Key Elements for Success

**Visionary
Leadership**



**Global Open
Standards**



**Smart
Regulation**



**Public-Private
Partnerships**



New Ecosystem



Thank you

<http://www.cisco.com/go/SmartConnectedCommunities>



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Lit
Fiber

Dark
Fiber

Internet
Egress

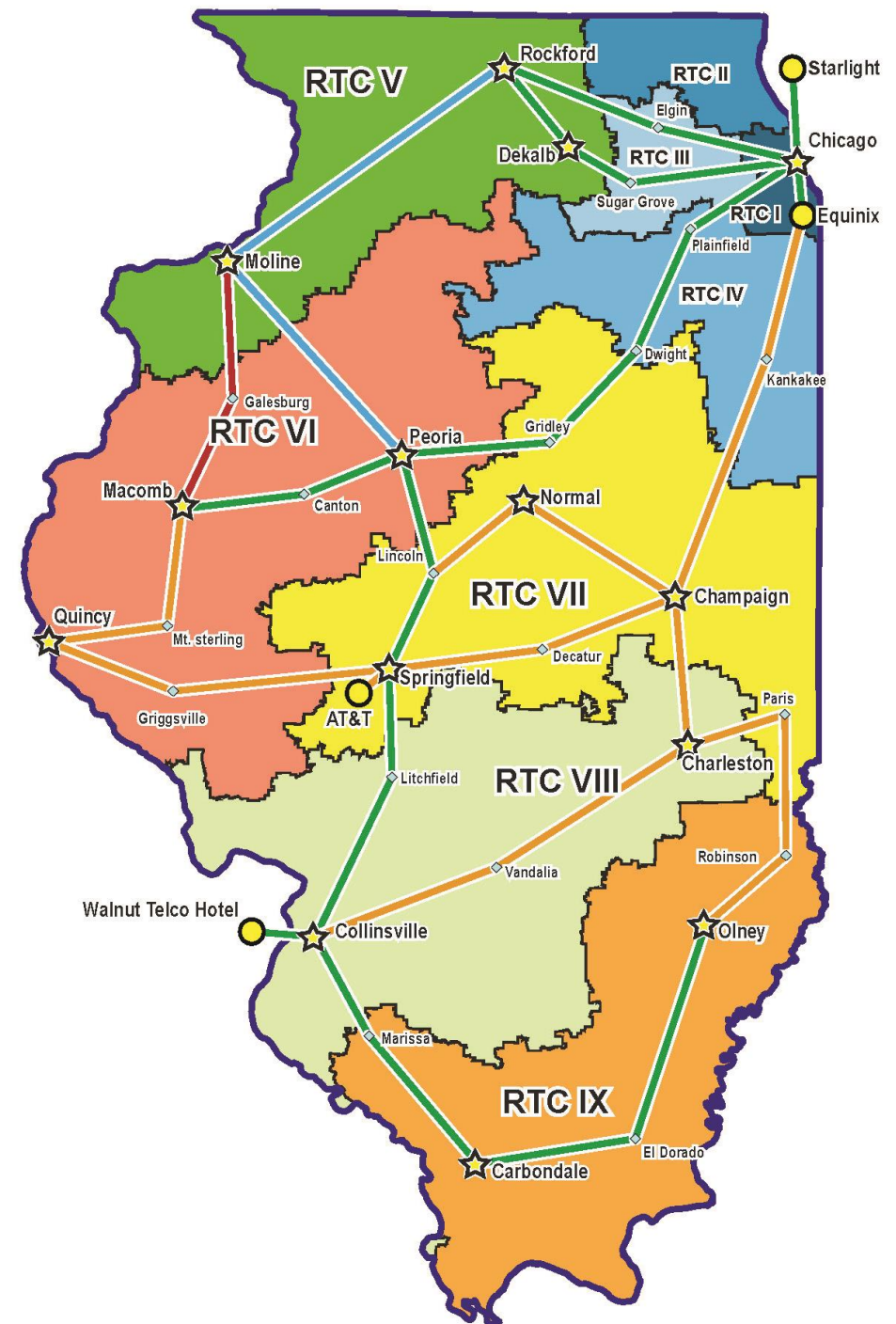
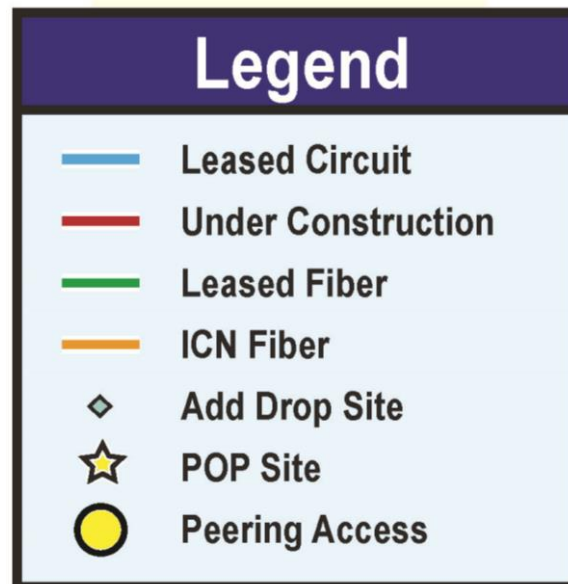
Illinois Century Network



2014 Illinois Digital Summit & Cyber Security Forum
October 7, 2014

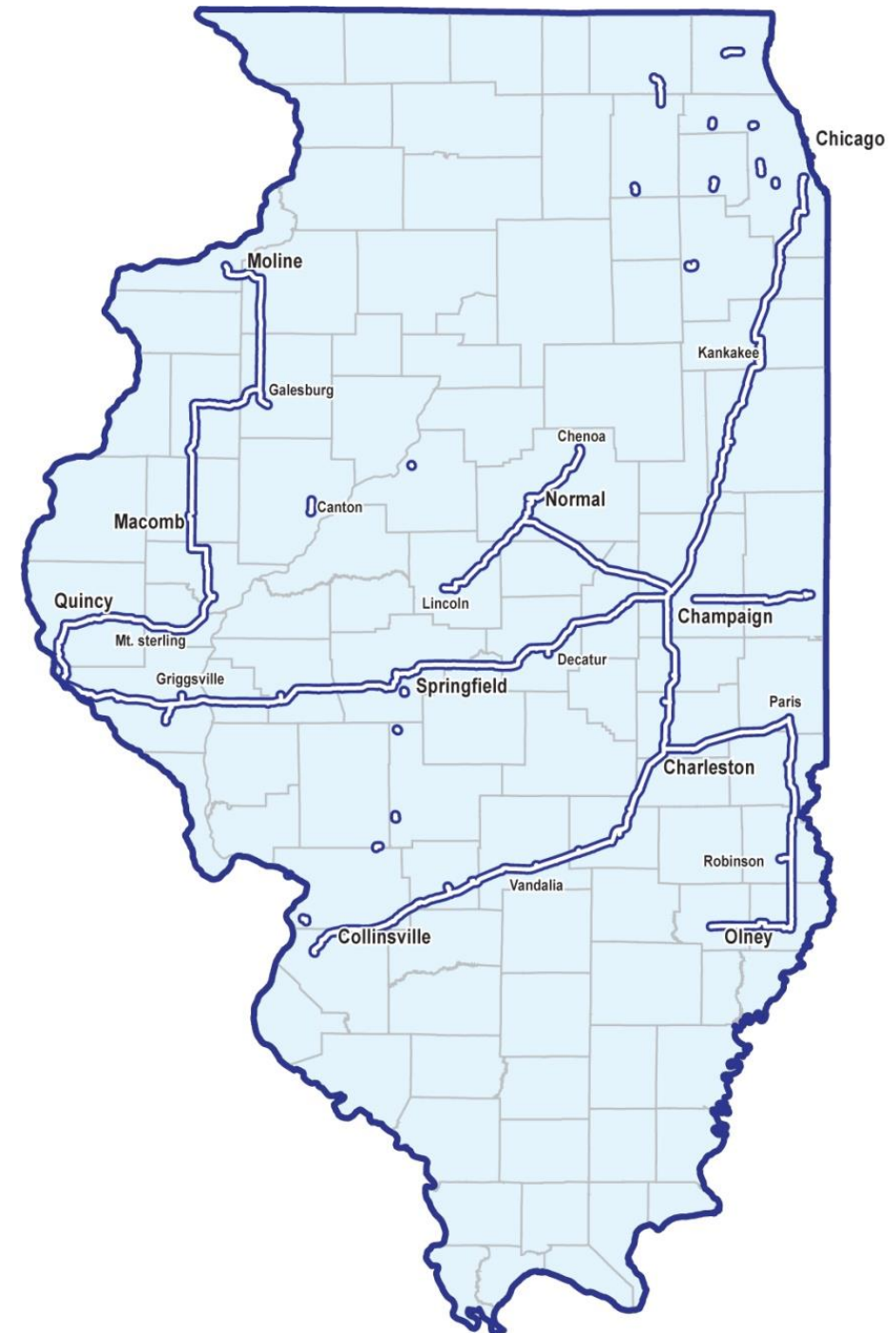
Illinois Century Network

- Open Access
- 2000 Miles of Fiber
- 10GB Backbone



ICN Fiber Map

- State Owned Fiber
- 20 Year Lease
- Frequent Access Points





Broadband Strategies Checklist

Access to Key Assets

- ✓ Lease public assets - fiber, conduit and real estate
- ✓ Facilitate underground construction
- ✓ Facilitate aerial construction through access to utility poles
- ✓ Facilitate in-building access for wireline infrastructure

Information Access

- ✓ Make data available wherever possible
- ✓ Document and publish data regarding available conduit, fiber and other assets

Process Efficiency

- ✓ Build broadband into planning and staffing of all relevant agencies
- ✓ Streamline and publicize procedures and timeframes for permitting and inspections
- ✓ Allow network operators to contract pre-approved third-party inspectors to speed processes and reduce local burdens

[**www.illinois.net**](http://www.illinois.net)

[**www.ifiber.org**](http://www.ifiber.org)

[**www.clearwave.com**](http://www.clearwave.com)

[**www.uc2b.net**](http://www.uc2b.net)

[**www2.ntia.doc.gov**](http://www2.ntia.doc.gov)

[**www.broadbandillinois.org**](http://www.broadbandillinois.org)

[**www.ctcnet.us/gigabit**](http://www.ctcnet.us/gigabit)

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